July 26, 2001

Terry Stokes
Suburban Steel Supply Company
1110 W. Thompson Rd.
Indianapolis, IN. 46217

Re: Registered Construction and Operation Status,
Registration 097-12837-00342

Dear Mr. Stokes:

The application from Suburban Steel Company, received on 10/20/2000, has been reviewed. Based on the data submitted and the provisions in 326 IAC 2-5.1, it has been determined that the following steel fabrication facility to be located at 1110 W. Thompson Rd. Indianapolis, Indiana, is classified as registered.

(a) Six (6) natural gas fired heaters identified as Emission Unit ID 1 through 6 exhausting to Stack/Vent 1 through 6. Emission Unit ID 1 through 6 have a maximum capacity of 1.5 million Btu per hour. Installed in 1994.

(b) One (1) Paint Booth, equipped with an air assisted airless paint gun, with a maximum capacity of 0.6 gal/hr, using dry filters as control, exhausting to Stack/Vents 10 and 11. Installed in 1994.

(c) Various fabrication processes, consisting of forming, sizing, pressing, machining, grinding, cutting and drilling. Various equipment is located throughout the facility to accomplish these tasks. Some of this equipment includes drills, cutters, grinders and saws. Installed in 1994.

The following conditions shall be applicable:

Pursuant to 326 IAC 5-1-2 (Opacity Limitations) except as provided in 326 IAC 5-1-3 (Temporary Exemptions), opacity shall meet the following:

(a) Opacity shall not exceed an average of thirty percent (30%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.

(b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of 15 minutes (60 readings) in a 6-hour period as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuos opacity monitor in a six (6) hour period.

Pursuant to 326 IAC 8-2-9 (d)(2) (Miscellaneous Metal Coating), the volatile organic compound (VOC) content of coating delivered to the applicator at the spray booth shall be limited to the following:

(a) 3.5 pounds of VOCs per gallon of coating less water, for air dried or forced warm air up to 194 degrees Farenheight.

(b) Solvent sprayed from application equipment during cleanup or color changes shall be directed into containers. Such containers shall be closed as soon as such solvent spraying is complete, and the waste solvent shall be disposed of in a manner that evaporation is minimized.

Pursuant to 326 IAC 6-3-2 (Process Operations), interpolation and extrapolation of the data for all PM emitting units shall be accomplished by use of the equation for the process weight up to sixty thousand (60,000) pounds per hour:

$E = 4.10 P^{0.67}$ where E = rate of emission in pounds per hour and
P = process weight rate in tons per hour

This registration is the first air approval issued to this source. The source may operate according to 326 IAC 2-5.5.

An authorized individual shall provide an annual notice to the Office of Air Quality that the source is in operation and in compliance with this registration pursuant to (326 IAC 2-5.1-2(f)(3). The annual notice shall be submitted to:

Compliance Data Section
Office of Air Quality
100 North Senate Avenue
P.O. Box 6015
Indianapolis, IN 46206-6015

and

Environmental Resources Management Division
Air Quality Management Section, Compliance Data Group
2700 South Belmont Avenue
Indianapolis, Indiana 46221-2097

no later than March 1 of each year, with the annual notice being submitted in the format attached.

An application or notification shall be submitted in accordance with 326 IAC 2 to the Office of Air Quality (OAQ) and the City of Indianapolis ERMD if the source proposes to construct new emission units, modify existing emission units, or otherwise modify the source.

Sincerely,

Vaneeta Kumar, Administrator
Environmental Resources Management Division

SLD

cc: File 2 copies
Mindy Hahn, IDEM

Registration
Annual Notification

This form should be used to comply with the notification requirements under 326 IAC 2-5.1-2(f)(3)

Company Name: Suburban Steel Supply Company
Address: 1110 W. Thompson Rd.
City: Indianapolis
Authorized individual: Terry Stokes
Phone #: 317-783-6555
Registration #: 097-12837-00342

I hereby certify that Suburban Steel Supply Company is still in operation and is in compliance with the requirements of Registration 097-12837-00342.

Name (typed):
Title:
Signature:
Date:

Indiana Department of Environmental Management
Office of Air Quality
and
City of Indianapolis
Indianapolis Environmental Resources Management Division

Technical Support Document (TSD) for a New Source Construction and Registration

Source Background and Description

Source Name:	**Suburban Steel Supply Company**
Source Location:	**1110 W. Thompson Rd. Indianapolis, IN. 46217**
County:	**Marion County**
SIC Code:	**3449**
Operation Permit No.:	**R097-12837-00342**
Permit Reviewer:	**Scott L. Dombrowski**

The City of Indianapolis, ERMD, and the Office of Air Quality (OAQ) has reviewed an application from Suburban Steel Supply Company relating to the construction and operation of steel fabrication.

Unpermitted Emission Units and Pollution Control Equipment

The source consists of the following unpermitted emission units and pollution control devices:

(a) Six (6) natural gas fired heaters identified as Emission Unit ID 1 through 6 exhausting to Stack/Vent 1 through 6. Emission Unit ID 1 through 6 have a maximum capacity of 1.5 million Btu per hour. Installed in 1994.

(b) One (1) Paint Booth, equipped with an air assisted airless paint gun, with a maximum capacity of 0.6 gal/hr, using dry filters as control, exhausting to Stack/Vents 10 and 11. Installed in 1994.

(c) Various fabrication processes, consisting of forming, sizing, pressing, machining, grinding, cutting and drilling. Various equipment is located throughout the facility to accomplish theses tasks. Some of this equipment includes drills, cutters, grinders and saws. Installed in 1994.

Existing Approvals

There are no existing permits for this facility.

Stack Summary

Stack ID	Operation	Height (feet)	Diameter (feet)	Flow Rate (acfm)	Temperature (^{0}F)
SV-1 thru SV-6	Unit Heaters	20 Ft.	0.5 Ft.	200 Est.	170 Est.
SV-7 thru SV-9	Welding, cutting and machining vents	15 Ft.	2.0 Ft.	5400 acfm	Ambient
SV-10 and SV-11	Painting Area	15 Ft.	2.0 Ft.	5400 acfm	Ambient

Enforcement Issue

(a) IDEM and ERMD are aware that equipment has been constructed and operated prior to receipt of the proper permit. The subject equipment is listed in this Technical Support Document under the condition entitled Unpermitted Emission Units and Pollution Control Equipment.

(b) IDEM and ERMD are reviewing this matter and will take appropriate action. This proposed permit is intended to satisfy the requirements of the construction permit rules.

Recommendation

The staff recommends to the Administrator that the operation be approved. This recommendation is based on the following facts and conditions:

Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant.

A complete application for the purposes of this review was received on October 16, 2000. Additional information was obtained during a plant tour on April 24, 2001.

Emission Calculations

See pages 1 through 3 of 3 in Appendix A of this document for detailed emission calculations.

Potential To Emit

Pursuant to 326 IAC 2-1.1-1(16), Potential to Emit is defined as “the maximum capacity of a stationary source or emissions unit to emit any air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of a source to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or type or amount of material combusted, stored, or processed shall be treated as part of its design if the limitation is enforceable by the U. S. EPA, the department, or the appropriate local air pollution control agency.”

Pollutant	Potential To Emit (tons/year)
PM	9.00E-002
PM-10	9.00E-002
SO_2	3.94E-003
VOC	12.0
CO	1.38E-001
NO_x	6.57E-001

HAP’s	Potential To Emit (tons/year)
Toluene	3.2

Xylene	1.9
TOTAL	5.1

Actual Emissions

No previous emission data has been received from the source.

County Attainment Status

The source is located in Marion County.

Pollutant	Status
PM-10	unclassifiable
SO_2	maintenance
NO_2	attainment
Ozone	maintenance
CO	attainment
Lead	unclassifiable

(a) Volatile organic compounds (VOC) and oxides of nitrogen (NOx) are precursors for the formation of ozone. Therefore, VOC emissions are considered when evaluating the rule applicability relating to the ozone standards. Marion County has been designated as attainment or unclassifiable for ozone. Therefore, VOC and NOx emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 and 40 CFR 52.21.

(b) Marion County has been classified as attainment or unclassifiable for PM-10, SO_2, Ozone, and Lead. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 and 40 CFR 52.21.

Source Status

Existing Source PSD, Part 70 or FESOP Definition (emissions after controls, based on 8,760 hours of operation per year at rated capacity and/ or as otherwise limited):

Pollutant	Emissions (ton/yr)
PM	9.00E-002
PM10	9.00E-002
SO_2	3.94E-003
VOC	12.0
CO	1.38E-001
NO_x	6.57E-001

(a) This existing source is not a major stationary source because it does not emit 100 tons per year or greater of any regulated pollutants.

Part 70 Permit Determination

326 IAC 2-7 (Part 70 Permit Program)

This existing source, including the emissions from this permit R -097-12837-00342, is not subject to the Part 70 Permit requirements because the potential to emit (PTE) of:

(a) each criteria pollutant is less than 100 tons per year,
(b) a single hazardous air pollutant (HAP) is less than 10 tons per year, and
(c) any combination of HAPs is less than 25 tons/year.

This status is based on all the air approvals issued to the source. This status has been verified by the ERMD inspector assigned to the source.

Federal Rule Applicability

(a) There are no New Source Performance Standards (NSPS)(326 IAC 12 and 40 CFR Part 60) applicable to this source.

(b) There are no National Emission Standards for Hazardous Air Pollutants (NESHAPs)(326 IAC 14, 326 IAC 20 and 40 CFR Part 63) applicable to this source.

State Rule Applicability - Entire Source

326 IAC 2-4.1 (New Source Toxics)

This rule does not apply because this is not a new source and each unit's potential to emit is below 10 tons per year for individual Hazardous Air Pollutants (HAPs) and 25 tons per year for combined HAPs.

326 IAC 5-1 (Visible Emissions Limitations)

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Exemptions), opacity shall meet the following, unless otherwise stated in this permit:

(a) Opacity shall not exceed an average of thirty percent (30%) any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.

(b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings) as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

State Rule Applicability - Individual Facilities

326 IAC 8-2-9 (Miscellaneous Metal Coating)

Pursuant to 326 IAC 8-2-9 (d)(2) (Miscellaneous Metal Coating Operations), the volatile organic compound (VOC) content of coating delivered to the applicator at the spray booth (Emission Unit ID Paint Booth) shall be limited to 3.5 pounds of VOCs per gallon of coating less water, for air dried or forced warm air up to 194 degrees Farenheight.

Solvent sprayed from application equipment during cleanup or color changes shall be directed into containers. Such containers shall be closed as soon as such solvent spraying is complete, and the waste solvent shall be disposed of in such a manner that evaporation is minimized.

Based on the MSDS submitted by the source and calculations made, the spray booth appears to be in compliance with this requirement.

326 IAC 6-3-2 (Process Operations)

The particulate matter (PM) from the paint booth (emission Unit ID Paint Booth) shall be limited by the following:

Interpolation and extrapolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$E = 4.10 P^{0.67}$ where E = rate of emission in pounds per hour and
P = process weight rate in tons per hour

The dry filters shall be in operation at all times the paint booth is in operation, in order to comply with this limit.

The particulate matter (PM) from the machining operations shall be limited by the following:

Interpolation and extrapolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$E = 4.10 P^{0.67}$ where E = rate of emission in pounds per hour and
P = process weight rate in tons per hour

Conclusion

The operation of this steel fabrication process shall be subject to the conditions of the attached proposed Registration No. 097-12837-00342.

Appendix A

Appendix A: Emission Calculations
Natural Gas Combustion Only
MM Btu/hr 0.3 - < 10

Company Name:	**Suburban Steel**
Address City IN Zip:	**1110 w. Thompson Rd., Indianapolis, IN. 46217**
CP:	
Plt ID:	**R097-12837-00342**
Reviewer:	**S. Dombrowski**
Date:	**07/26/2001**

Heat Input Capacity MMBtu/hr	Potential Throughput MMCF/yr
1.5	13.1

	Pollutant					
	PM	PM10	SO2	NOx	VOC	CO
Emission Factor in lb/MMCF	13.7	13.7	0.6	100.0	5.3	21.0
Potential Emission in tons/yr	9.00E-02	9.00E-02	3.94E-03	6.57E-01	3.48E-02	1.38E-01

Methodology

MMBtu = 1,000,000 Btu

MMCF = 1,000,000 Cubic Feet of Gas

Emission Factors for NOx: uncontrolled = 100, Low Nox Burner = 17, Flue gas recirculation = 36

Emission Factors for CO: uncontrolled = 21, Low NOx Burner = 27, Flue gas recirculation = ND

Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,000 MMBtu

Emission Factors from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, and 1.4-3, SCC #1-03-006-03

Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton

Appendix A: Emissions Calculations
VOC and Particulate
From Surface Coating Operations

Company Name: Suburban Steel
Address City IN Zip: 1110 W. Thompson Rd., Indianapolis, IN. 46217
CP:
Plt ID: R097-12837-00342
Reviewer: SLD
Date: 07/26/2001

Material	Density ERR	Weight % Volatile (H20& Organics)	Weight % Water	Weight % Organics	Volume % Water	Volume % Non-Vol (SOLIDS)	Gal of Material per Unit (GAL/UNIT)	Units per Hour (UNIT/HOUR)	Pounds VOC per gallon of coating less water	Pounds VOC per gallon of coating	Potential VOC pounds per hour	Potential VOC pounds per day	Potential VOC tons per year	Particulate Potential ton/yr	lb VOC /gal solids	Transfer Efficiency
5-0368 Primer	12.66	26%		26%			0.25	2.42	3.32	3.2916	1.991418		8.7		9.18	0%
5-0268B Enamel	12.5	26.60%		26.0%			0.25	2.42	3.3	3.325	2.011625		8.8		9.4	0%
Solvent Blend	6.75	100.00%		100%						6.75			3.2			

notes: xylene usage calculated at 55gal/520hrs. = 0.1 gal/hr (0.1 gal/hr) * (8760hr/yr) * (7.23 lbsvoc/gal) * (1 ton/yr) =3.2 ton/yr

State Potential Emissions Add worst case coating to all solvents

METHODOLOGY

Pounds of VOC per Gallon Coating less Water = (Density (lb/gal) * Weight % Organics) / (1-Volume % water)
Pounds of VOC per Gallon Coating = (Density (lb/gal) * Weight % Organics)
Potential VOC Pounds per Hour = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr)
Potential VOC Pounds per Day = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr) * (24 hr/day)
Potential VOC Tons per Year = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr) * (8760 hr/yr) * (1 ton/2000 lbs)
Particulate Potential Tons per Year = (units/hour) * (gal/unit) * (lbs/gal) * (1- Weight % Volatiles) * (1-Transfer efficiency) *(8760 hrs/yr) *(1 ton/2000 lbs)
Pounds VOC per Gallon of Solids = (Density (lbs/gal) * Weight % organics) / (Volume % solids)
Total = Worst Coating + Sum of all solvents used

surcoat.wk4 9/95

Potential HAP Emissions

Material	Density ERR	Weight % HAP + H2O	Weight % Water	Weight % HAP	Volume % Water	Volume % Non-Vol (SOLIDS)	Gal of Material per Unit (GAL/UNIT)	Units per Hour (UNIT/HOUR)	Pounds HAP per gallon of coating less water	Pounds HAP per gallon of coating	Potential HAP Pounds per hour	Potential HAP Pounds per day	Potential HAP Tons per year	Particulate Potential ton/yr	lb VOC /gal solids	Transfer Efficiency
5-0268B Enamel	12.5	5.60%		5.6%			0.25	2.42	3.3	0.7	0.4235		1.85493		9.4	0%
Solvent Blend	6.75	100.00%		100%						6.75			3.2			

Appendix A: Emission Calculations
Insignificant Activities PTE

max tons/yr of welding consumables:
80

Company Name: Suburban Steel Supply Company
Address City IN Zip: 1110 W. Thompson Rd., Indianapolis, IN 46217
CP:
Plt ID: 12837
Reviewer: S. Dombrowski
Date: 07/26/2001

Insignificant Activity	PTE		Actual	
	PM tons/yr	PM10 tons/yr	PM tons/yr	PM10 tons/yr
Mig and Stick Welders	*	*	NR	NR
Acetylene and Plasma Cutters	*	*	NR	NR
Pedistal and Hand Grinders	*	*	NR	NR
Drill Press's	*	*	NR	NR
Metal Saws	*	*	NR	NR
Slugger Machines	*	*	NR	NR
Hand Drills	*	*	NR	NR
SUM	*	*	*	*

25 lbs PM/day* 365/2000 + 4.6 tons per year

NR = Not Reported

AP-42 emfac Table 12.19-1 for FCAW is, worst case, 57 lbs PM10/1000 lbs of welding consumables:
4.5 tons/yr* 2000 lbs/ton * 57 lbs PM10/1000 lbs * ton/2000 lbs = 2.6 E -1 tons PM 10/yr